

# Solar Technologies: Design, Installation, and Operation

## COURSE OVERVIEW

The Solar Technologies: Design, Installation, and Operation course provides participants with an in-depth understanding of solar energy systems, from fundamental principles of photovoltaic technology to advanced methods of design, installation, and operational management. The program emphasizes practical applications, equipping learners with the technical skills needed to design efficient solar systems, ensure proper installation, optimize performance, and conduct maintenance for long term reliability.

## WHO SHOULD ATTEND?

This course is designed for engineers, technicians, project managers, energy professionals, policymakers, and entrepreneurs seeking to expand their expertise in renewable energy technologies. It is also valuable for individuals aiming to transition into the solar energy sector, including those interested in sustainable development, facility management, or establishing solar installation businesses.

## COURSE OUTCOMES

Delegates will gain the skills and knowledge to:

- Acquire comprehensive knowledge of solar energy principles, system components, and design methodologies.
- Develop practical skills for the installation, testing, and commissioning of photovoltaic systems.
- Learn to troubleshoot, maintain, and optimize solar technologies for efficiency and durability.
- Understand the regulatory, safety, and environmental considerations in solar energy projects.
- Gain the ability to evaluate project feasibility and contribute to sustainable energy adoption.

## KEY COURSE HIGHLIGHTS

At the end of the course, you will understand:

- Expert-led lectures and interactive sessions.
- Hands-on training with solar panels, inverters, and monitoring systems.
- Case studies of successful solar projects across different sectors.
- Focus on both grid-connected and off-grid applications.
- Practical guidance on safety standards, regulations, and quality assurance.
- Networking opportunities with industry professionals and practitioner

All our courses are dual-certificate courses. At the end of the training, the delegates will receive two certificates.

1. A GTC end-of-course certificate
2. Continuing Professional Development (CPD) Certificate of completion with earned credits awarded